



STATE OF MARYLAND

DMMH

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October 8, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:39 Reporting for the week ending 10/02/10 (MMWR Week #39)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)
Maryland: Yellow (ELEVATED)

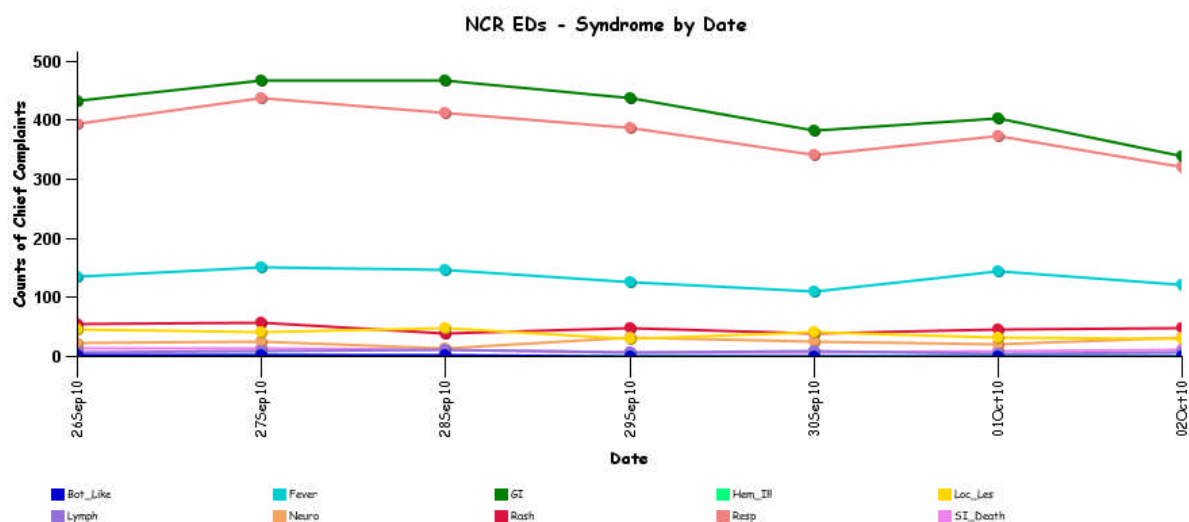
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

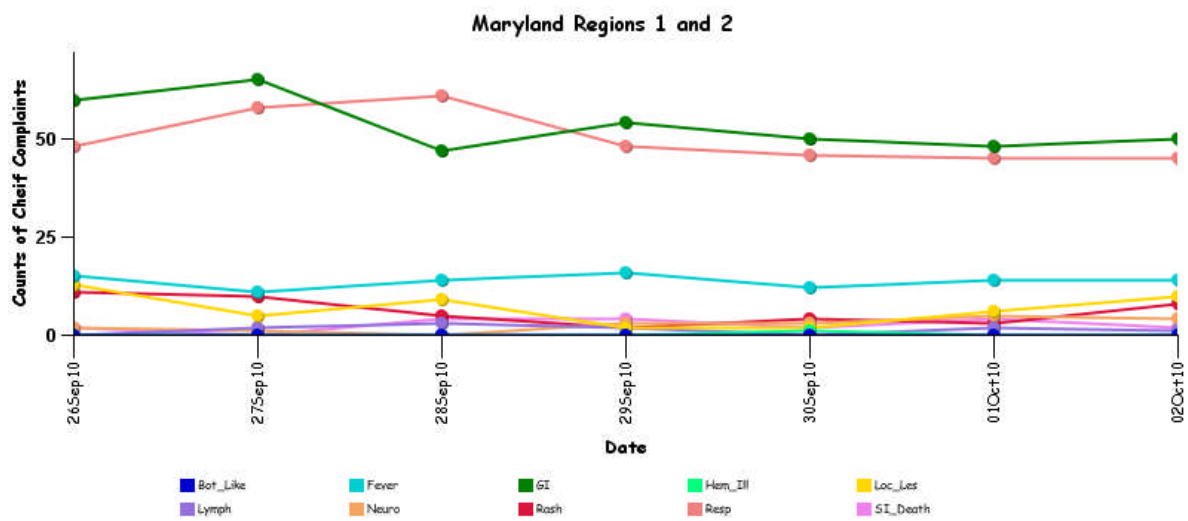
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

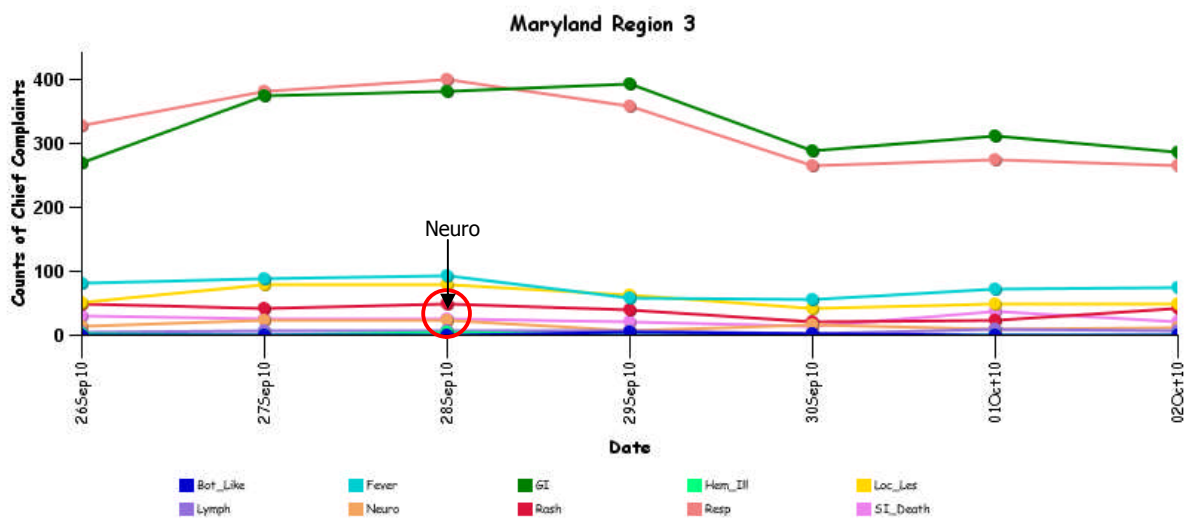
MARYLAND ESSENCE:



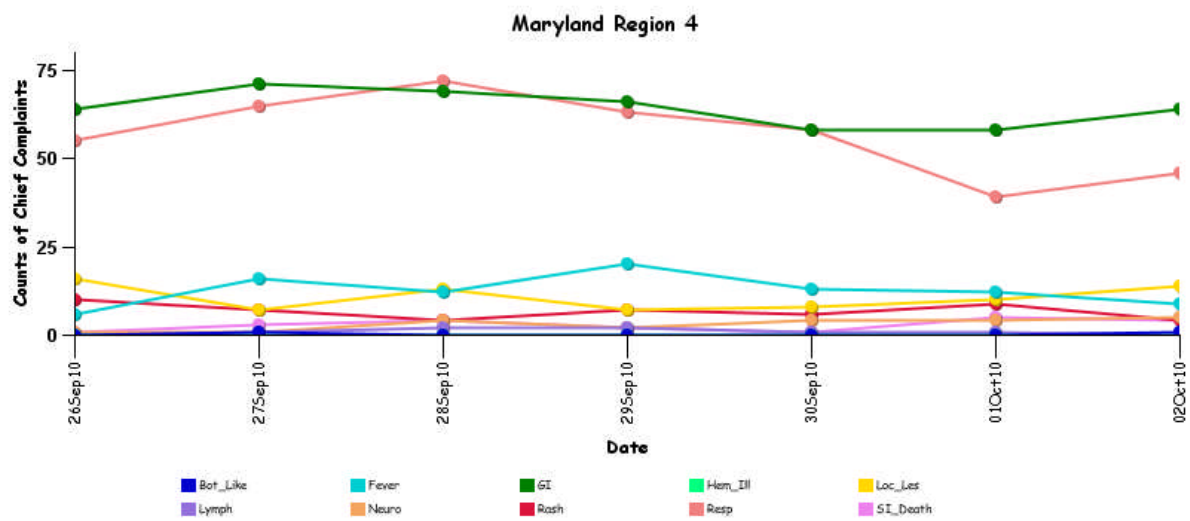
*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE



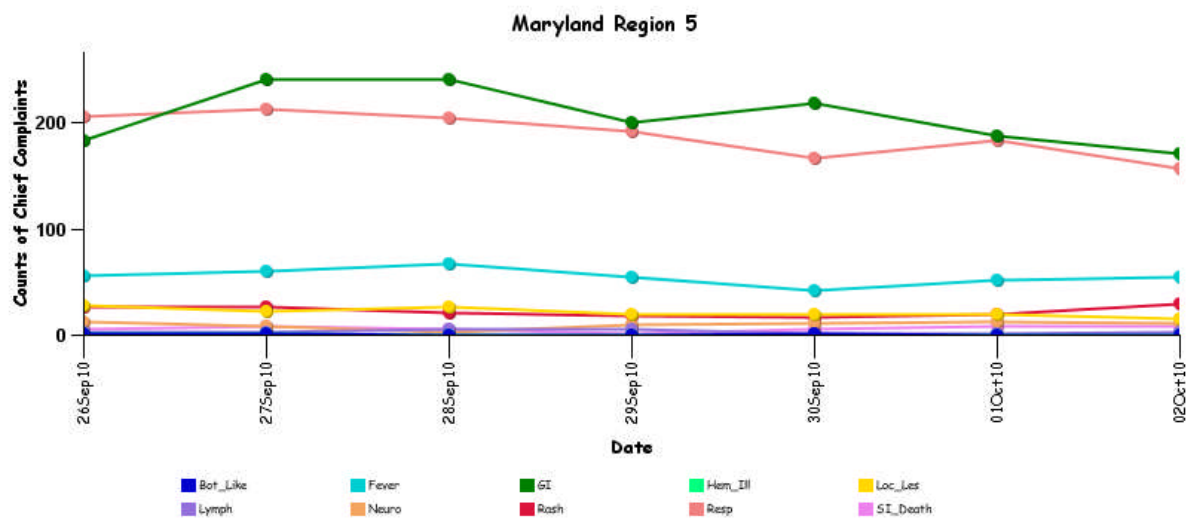
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

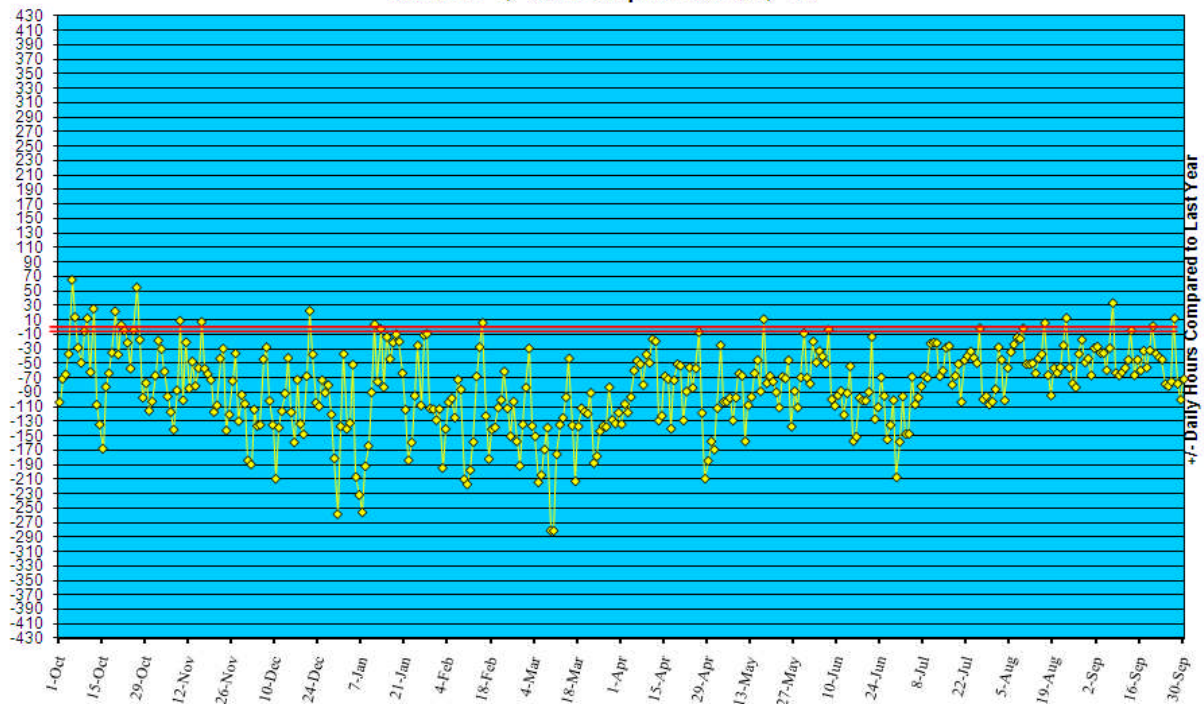


* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/09.

Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '09 to September 30, '10



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in August 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (September 26– October 02, 2010):	14	0
Prior cases (September 19 – September 25, 2010):	16	0
Week#39, 2009 (September 27 – October 03, 2009):	19	0

1 outbreak was reported to DHMH during MMWR Week 39 (September 26 – October 02, 2010)

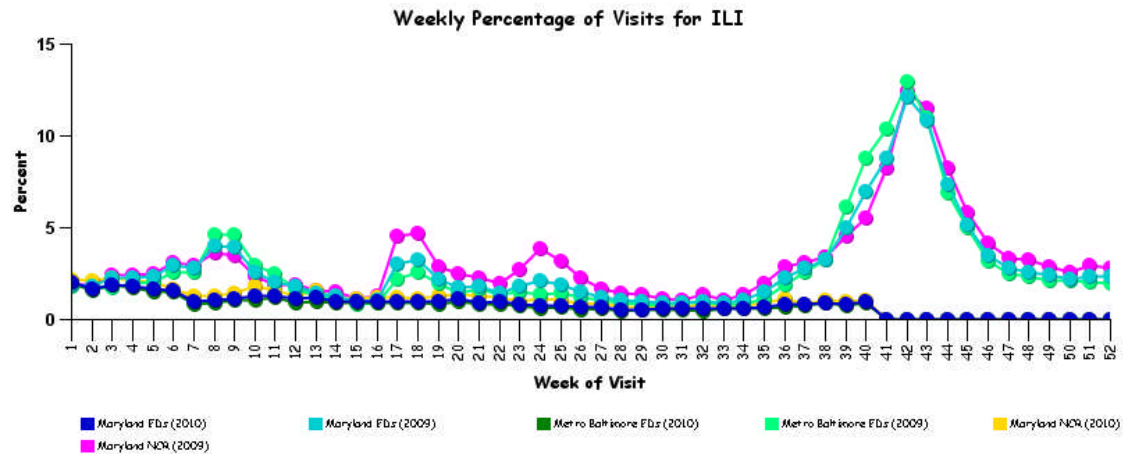
1 Gastroenteritis outbreak

1 outbreak of GASTROENTERITIS in a Nursing Home

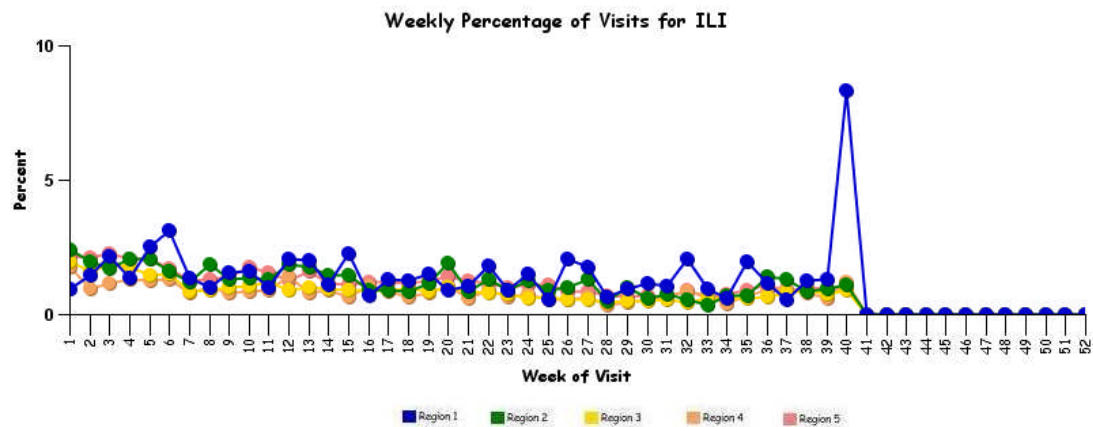
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



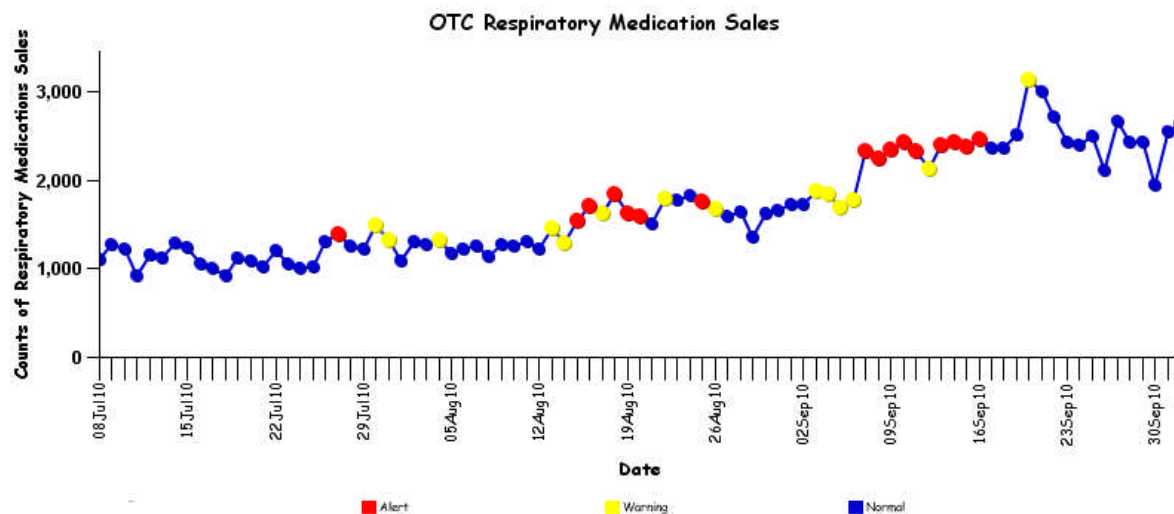
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS:

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of August 31, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 505, of which 300 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

AVIAN INFLUENZA, HUMAN, SUSPECTED (INDONESIA): 30 September 2010, Dr. Wahidin Sudirohusodo Hospital in the South Sulawesi capital of Makassar is treating 4 people from Pinrang and Soppeng regencies for displaying symptoms of avian flu virus [avian A/(H5N1) influenza virus] infection. The patients, 3 of them children, were admitted to the hospital on Tuesday night [28 Sep 2010] after complaining about high fever, suffocation and coughs. They were immediately taken to the infection center in accordance with the standard operating procedure for avian flu treatment, the hospital's director, Kalsum Patonangi, said Wednesday [29 Sep 2010]. "We are waiting for the laboratory examination to confirm the status of the patients," Kalsum said. Head of the Pinrang health agency for disease control, Dyah Puspita Dewi, said the agency had monitored 30 people who suffered from fever. She added 3 of them were admitted to the hospital as their health condition worsened. "We suspect the 3 people were infected with the bird flu virus as their fever reaches 38 C and [they] complain of suffocation, sore throats and coughs, which are symptoms of the disease," she said. She added the 3 patients caught a fever after dozens of chickens near their homes suddenly died. The regional agriculture and husbandry agency data recorded that 6300 chickens in 7 districts across Pinrang regency had died in the past week [as a result of] avian flu virus [infection].

AVIAN INFLUENZA, SUSPECTED (INDONESIA): 30 September 2010, The Livestock and Fishery Service of Kabupaten (municipality) Sidrap, South Sulawesi, strengthened livestock traffic control from Sidrap borders: Pinrang-Sidrap, Parepare-Sidrap, Wajo-Sidrap and Soppeng-Sidrap to prevent disease introduction to Sidrap from other areas, said Head of the Livestock and Fishery Service of Sidrap, HM Abd Azis. So far, Azis and team are still investigating whether thousands of chicken deaths in Sidrap were caused by bird flu virus. The Livestock and Fishery Service of Sidrap up to now has recorded about 1000 sudden chicken deaths. The highest numbers of deaths were recorded from Kelurahan Kadidi. Separately, from Kabupaten Pinrang, Head of Agriculture and Livestock of Pinrang, H Syamsu Sulaiman stated that they had done disinfection in entire sub-districts and depopulation of hundreds of bird flu infected chickens. The Livestock Service also isolated the infected areas, Sawitto, Tiroang, Paletang, Mattiro Bulu, and Lanrisang. Pinrang's Head of Animal Health and Veterinary Public Health, Dr Elvi Martina, said that bird flu diagnosis was done by clinical observation, necropsy and rapid test. Negative results should be re-checked by laboratory test in Maros (Veterinary Disease Investigating Center). "But for the current outbreak in Pinrang, we don't continue laboratory testing,

because they all have tested positive for bird flu," added Elvi. Formerly, bird flu outbreaks in Pinrang were recorded in 2006 and 2007. No outbreaks were recorded in 2008 and 2009. Elvi said that in order to state that an area is clear from bird flu requires zero cases in 3 consecutive years, and then the area can be stated as free in the 4th year. In Pinrang, Elvi mentioned that no special regional budget was allocated for bird flu eradication and control. However, a routine budget is provided for depopulation of infected chickens and suspected chickens living within infected areas, as stated in Presidential Instruction 2007. The regulation also mentioned compensation which should be provided to affected farmers. So far, the Livestock Service of Pinrang has recorded a total of 4094 chickens infected by bird flu. In detail, in Kecamatan Lanrisang are 2690 backyard and 400 broiler chickens; in Kecamatan Mattirobulu are 275 backyard chickens; in Kecamatan Watang Sawitto and Tiroang are 50 backyard chickens for each sub-district; and in Kecamatan Patampanua are 625 layer chickens. The Health Service has not observed [confirmed] any bird flu transmission to humans in Pinrang, however 18 people are under observation.

NATIONAL DISEASE REPORTS:

EASTERN EQUINE ENCEPHALITIS, EQUINE (OHIO): 02 October 2010, A case of Eastern equine encephalitis (EEE) has been confirmed in the death of a horse on a farm in Sandusky County, the Sandusky County Health Department reported Tuesday [28 Sep 2010]. The disease, commonly called sleeping sickness, can be spread to humans, according to the report, though there are no known human illnesses associated with this confirmation of the disease. There have been occasional cases of the disease in Ohio since a large outbreak occurred in horses in 1991 in Wayne and Holmes counties. The disease is caused by a virus that can infect birds, horses and humans, the department reported, and is transmitted by mosquitoes. Typically, outbreaks of EEE occur in late summer and early fall when mosquitoes are most abundant. The Sandusky County Health Department wants to warn residents that, although it is rare for humans to contract the disease, they should take steps to avoid mosquito bites. Wearing light-colored clothing, long-sleeved shirts, long pants, socks and shoes can all help prevent getting bit by mosquitoes carrying EEE. The health department also recommends insect repellents used according to their label directions. Infected horses can experience symptoms including paralysis, impaired vision, difficulty swallowing, hanging their heads and grinding their teeth. According to the health department, infected horses usually die within 3 to 5 days after showing symptoms of the disease. An effective vaccine does exist for horses, and the health department asks horse owners to have their animals vaccinated for EEE and other mosquito-borne diseases. Owners who suspect their horse might have the disease should report the case to local veterinarians and the Ohio Department of Agriculture. Any suspected human cases should be reported to the local health department. Humans can also contract West Nile virus, St. Louis encephalitis and La Crosse encephalitis from mosquitoes. Mosquitoes stay active and can transmit viruses, according to the health department, until the first frost. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

EASTERN EQUINE ENCEPHALITIS, EQUINE, HUMAN (NEW YORK): 26 September 2010, Two more horses in Onondaga County have tested positive for eastern equine encephalitis, the county Health Department announced Friday [24 Sep 2010] afternoon. The horses, which were kept on Lamson Road in Lysander, became ill and died on 17 Sep 2010, officials said. So far, 3 cases of EEE have been confirmed this year [2010] in the county, officials said. The 1st horse, which was stabled on Oswego Road in Lysander, was euthanized on 10 Sep 2010. An Onondaga County resident infected with the virus died earlier this month [September 2010], the 4th human EEE death in Central New York since 1971. County health officials Friday [24 Sep 2010] also announced that no EEE was found among mosquitoes trapped last week and tested this week. Although EEE cases are rare, the virus is one of the most serious mosquito-borne diseases. About 1/3rd of people infected with it die. Most survivors suffer significant brain damage. There is no specific treatment for EEE, nor is there a human vaccine. Symptoms can range from a mild flu-like illness to sudden fever, muscle pains and a headache that's often followed quickly by seizures and coma. Symptoms can appear within 5-15 days after the bite of an infected mosquito. EEE is diagnosed through blood or spinal fluid. Fresh water swamps like the Cicero Swamp are breeding grounds for EEE-infected mosquitoes. The county conducted aerial spraying of the swamp earlier this month [September 2010]. Dr. Cynthia Morrow, county health commissioner, urged people to continue to remain vigilant and to take measures to reduce exposure to mosquitoes. She advised residents to use insect repellent, wear long-sleeve shirts and long pants outdoors, and refrain from outdoor activity during prime mosquito feeding times at dawn and dusk. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS:

SALMONELLOSIS, SEROTYPE BAREILLY, SPROUTS (UNITED KINGDOM): 02 October 2010, The UK Health Protection Agency (HPA) is strongly urging caterers and the public to wash and thoroughly cook raw bean sprouts before they are eaten, unless they are clearly labeled as ready to eat. This warning comes on the heels of the detection by a government lab of *_Salmonella_* in a sample of raw bean sprouts. HPA has confirmed 106 cases of *_Salmonella_* [enterica_ serotype] Bareilly infections in England (102 cases), Wales (3 cases) and Northern Ireland (1 case). Health Protection Scotland has confirmed 19 cases, all of which are a genetic match for the 106 cases in England. At least some of the outbreak victims, when interviewed, reported having consumed bean sprouts. Genetic typing results for the *_Salmonella_* found in the sprouts will be available in a few days. Bean sprouts, along with other seed sprouts, have a long history of involvement in foodborne disease outbreaks. In 1973, 4 people fell ill after eating raw bean sprouts that were produced using a do-it-yourself kit. The sprouts, when cultured in the lab, produced a pure culture of *_Bacillus cereus_*. The most notorious sprout-related outbreaks took place in Japan in 1996 and 1997. In all, some 12 000 people, many of them school children, were infected with *_E. coli_* O157:H7 after consuming contaminated radish sprouts. 12 people died. The sprouts were produced from radish seeds imported into Japan from the USA. Raw alfalfa, soybean, radish, clover and mung bean sprouts all have been implicated in foodborne outbreaks since 1973, most often due to *_E. coli_* O157:H7 or *_Salmonella_*. In May 2010, alfalfa sprouts produced by Caldwell Fresh Foods (Maywood, California) were the source of an outbreak of *_Salmonella_* Newport that caused 44 (lab-confirmed) illnesses in 11 US states. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

JAPANESE ENCEPHALITIS (INDIA): 01 October 2010, The vector-borne deadly Japanese encephalitis (JE) toll in eastern Uttar Pradesh today reached 361, following the deaths of 3 more children in the last 24 hours. Official sources said so far, 2354 JE patients had reported at the Baba Raghav Das Medical College here and other district hospitals in the division, of which 361, including 38 from Bihar and one from Nepal had died. Since yesterday, 31 new JE cases had come to light. Almost 272 JE patients were still convalescing at the various hospitals. The newest deaths included one each of Gorakhpur, Kushinagar and Bihar. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

CRIMEAN-CONGO HEMORRHAGIC FEVER (PAKISTAN): 01 October 2010, The city hospitals on Thursday [30 Sep 2010] received 15 patients with symptoms of the deadly Crimean-Congo haemorrhagic fever (CCHF) from Chakwal and adjoining areas. A total of 11 patients were admitted to Holy Family Hospital (HFH) and 2 each to District Headquarters (DHQ) Hospital and Benazir Bhutto Hospital. The doctors said that [the patients] had been suffering from fever for the last 6 days and some of the patients' gums had started to bleed. They said that the doctors suspected them to be patients with CCHF. They were shifted to the intensive care unit (ICU) and their blood samples were dispatched to the National Institute of Health (NIH) for testing for CCHF and dengue fever. They said that the hospitals would receive the blood test report on Friday [01 Oct 2010] and if the patients tested positive for the disease the doctors would start to provide medication in an isolation room. Doctors at Holy Family Hospital said that as many as 7 patients came from tehsil [administrative zone] Dhudyal, Chakwal; one patient from Chakwal city and the rest [5] from Rawalpindi city. They said that 2 patients with symptoms of dengue and CCHF also came to hospital from Chakwal but they expired on Wednesday night [29 Sep 2010]. They said that the dead were handed over to their families on Thursday morning. Talking to Dawn, Dr Javed Hayat of Holy Family Hospital said, "the patients have been kept under observation in an ICU and their treatment will start as soon as the hospital receives their blood test report." Replying to a query about the staff of the hospital who had contracted the CCHF, Dr Hayat said that their condition was stable and they were being provided with all available medical treatment. He said, "Though the blood tests of the doctors were positive, no symptoms have appeared." The Benazir Bhutto Hospital medical superintendent, Dr Asif Qadir Mir, said that the blood samples of 2 patients had been sent to the NIH and they would receive a report on Friday [01 Oct 2010]. DHQ hospital medical superintendent Dr Sher Ali Khan also confirmed that there were 2 patients in the hospital and the doctors suspected them to be cases of CCHF. He said that the medical treatment of the patients would be started after they received reports from the NIH. However, he said that the doctors were monitoring the condition of the patients in an isolation ward. (Viral Hemorrhagic Fevers are listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

LASSA FEVER (SIERRA LEONE): 01 October 2010, An epidemic of Lassa hemorrhagic fever now affecting several West African countries, has reached Sierra Leone and so far has been responsible for 2 deaths according to a statement from the Sierra Leone Health Authorities issued on Monday [27 Sep 2010]. A 45-year-old woman and her 6-year-old son died in a private hospital in the town of Kamení (Northern region) stated Dr Yankuma Bah who has responsibility for health services in the region. He stated that: "On the basis of laboratory tests, we have concluded that the deaths were a consequence of Lassa virus infection." Another 7 people have contracted Lassa hemorrhagic fever and 3 are in critical condition. Rats are the source of Lassa fever infection. The disease is named after a town in Nigeria where the 1st cases were observed in 1969. Lassa virus is transmitted among humans by direct contact with the blood, urine, and other biological secretions of an infected person. Percy Blango, on behalf of the health services in the region, advised that rats, which are often used as a food source in northern Sierra Leone, should not be eaten. The principal clinical signs of Lassa virus infection (fever, vomiting, abdominal pain) are similar to those of malaria, dysentery, and yellow fever, which complicates initial diagnosis of the condition. According to the World Health Organisation (WHO) between 300 000 and 500 000 people are affected by Lassa fever in West Africa each year, and 5000 die as a consequence. Lassa fever is endemic in parts of Nigeria, Guinea, Liberia and Sierra Leone, and sporadically affects other countries such as Senegal. (Viral Hemorrhagic Fever is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA AND DENGUE (INDIA): 29 September 2010, Now adding to its woes, chikungunya [virus infection] has made a comeback in the national capital. The city reported 6 new cases of the viral disease on Wednesday [22 Sep 2010], taking the total number of cases in Delhi to 8. According to health department officials, the vector which carries dengue is also responsible for spreading chikungunya. The cases were reported from the Palam area in outer Delhi. They were initially reported to Public Health Centre Palam. A medical team from Lady Hardinge Medical College (LHMC) took the samples and found them to be positive. MCD has deployed a number of specialists to find the source of the disease. "We have deputed a team of entomologists and epidemiologists to find the source of infection. They will take appropriate action to check breeding of mosquitoes and elimination of adult mosquitoes in the area. Chikungunya [virus] is also spread by the vector _Aedes_. But the virus is different from dengue," said Dr V K Monga, chairman MCD. (Emerging Infectious Disease in Category C on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE (RUSSIA): 27 September 2010, Anthrax has been detected in Krasnodar Territory. 5 persons in the region are hospitalized with suspicion, and a diagnosis of "anthrax" has been confirmed in 2 of them. 3 people are still under suspicion, and their diagnosis will be specified on the 28 Sep 2010. Ill persons are isolated; their condition is satisfactory; new signs of the disease have not been detected. 32 people are placed in quarantine under permanent medical supervision. The anthrax casualties are farm workers and persons they were in contact with. The disease was detected on one of the dairy farms of the region in the Stanitsa of Uspenskaya. The farm was closed; 19 cows were killed and the corpses burned. The farm is quarantined. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

CHIKUNGUNYA (FRANCE): 26 September 2010, French health authorities have asked doctors on the Riviera to be on the alert after a 2nd case of the mosquito-borne chikungunya virus was detected in the region this weekend. In the town of Frejus, 2 12-year-old girls have caught the virus that causes fever, headaches and arthritic-type symptoms that leave victims stooped, officials said Sunday [26 Sep 2010]. They noted that both cases were "native," meaning that the victims had not travelled to the parts of eastern Africa, southeast Asia or the Indian subcontinent where the virus is widespread. The tiger mosquito [_Aedes albopictus_] transmits the chikungunya virus. The insect has moved north in recent years. There is no known vaccine or treatment for chikungunya [virus infection], which has infected millions of people in Africa and Asia and can cause debilitating pain and, in

extreme cases, death [death, very rarely]. A region in Italy suffered an outbreak of chikungunya that hit 240 people over a 2-month period. An outbreak on the French Indian Ocean island of Reunion in 2005 infected a quarter of the population in less than 2 years, causing some 250 deaths. (Emerging Infectious Disease in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

PLAGUE, PNEUMONIC (CHINA): 26 September 2010, China issued a health alert in its southwestern region of Tibet after 5 people were diagnosed with the plague, an often fatal infectious disease. One of the 5 has already died from a severe lung infection attributed to the pneumonic plague, while one other patient was in a critical condition, the Tibet health department said in a statement on its website on Sunday [23 Sep 2010]. The outbreak was 1st detected on Thursday [23 Sep 2010] last week in Latok village in Tibet's Nyingchi Prefecture, the department said. The four patients, all of whom had contact with the deceased, have been quarantined, it said. Disease control experts have been dispatched to the area in an effort to control the further spread of the disease, it said. The department also issued a warning to anyone who has visited the region near the outbreak to seek immediate medical attention should they develop fever, cough or other flu-like symptoms common to the plague. Pneumonic plague is spread by rodents like marmots, which are numerous in Tibet. An outbreak of the disease last year killed 3 people in Ziketan, a town in a Tibetan area in neighboring Qinghai province. The World Health Organisation says pneumonic plague is the most virulent but least common form of plague. The mortality rate can be high, but prompt antibiotic treatment is effective. (Plague is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmd.state.md.us/>

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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